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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/673,612	10/19/2000	Shinsuke Nishida	Q61131	2108

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EXAMINER

YANG, RYAN R

ART UNIT PAPER NUMBER

2672

DATE MAILED: 08/12/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/673,612

Applicant(s)

NISHIDA, SHINSUKE

Examiner

Ryan R Yang

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on pre-amendment filed 2/19/2000.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-29 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 3.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

1. This action is responsive to communications: Pre-Amendment, filed on 2/19/2000. This action is non-final.
2. Claims 1-29 are pending in this application. Claims 1, 2 and 7 are independent claims. In the Pre-Amendment, filed on 2/19/2000, claims 3-6 were amended, and claims 8-29 were added.

This application claims foreign priority dated 2/19/1999.

3. The present title of the invention is "Font memory and font data reading method" as filed originally.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claim 7 is rejected under 35 U.S.C. 102(b) as being anticipated by Igarashi (5,740,462).

As per claim 7, Igarashi discloses a font data reading method, wherein, based on character specifying address signals for corresponding to the character signals specifying a resolution level of the font data, font data corresponding to the character codes specified by the character specifying address signals and corresponding to a specifying font data codes and on resolution level resolution level specified by the

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resolution level signals is read from an information storage medium on which is stored a plurality of groups of font data having different resolutions and represented by character codes (Figure 2- 205 is an address specifying a font, Figure 2- 203 is the basic resolution and Figure 1-120 is the input terminals for specifying the font and resolution and Figure 1-107 is the storage medium having different font and resolution).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Igarashi (5,740,462).

As per claim 1, Igarashi discloses a font memory in which a plurality of groups of font data having different resolutions and represented by a dot pattern are stored for respective character codes, comprising:

a plurality of first input terminals for input of character specifying address signals that specify the font data corresponding to a character code (Figure 2- 205 is an address specifying a font and Figure 1-120 is the input terminals);

a plurality of second input terminals for input of resolution level signals that specify resolution levels of the font data (Figure 2- 203 is the basic resolution and Figure 1-120 is the input terminals. It is noted that Igarashi does not explicitly disclose

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having separate first input terminals and second input terminals, however, since input 120 specifies image of a character and resolution of the image (column 2, line 41-44), it is a matter of designer's choice to have either one terminal or two terminals and would have been obvious to one of ordinary skill in the art at the time the invention was made to make such choice in order to accomplish the same tasks); and

a plurality of output terminals through which the font data in accordance with the input of said first input terminals and said second input terminals is output (Figure 1- 121 is image signal and 122 is control signal of output), wherein,

based on character specifying address signals input from said first input terminals and resolution level signals input from said second input terminals, font data that corresponds to the character codes specified by the character specifying address signals and corresponds to the resolution levels is output from the specified by the resolution output terminals (Figure 1- 105 is output terminal, 121 is image signal and 122 is control signal to form an image having a designated resolution (column 2, line 42-46)).

8. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Igarashi (5,740,462), and further in view of Sugiura et al. (5,189,523).

As per claim 2, Igarashi discloses a font memory in which a plurality of groups of font data having different resolutions and represented by a dot pattern are stored for respective character codes, comprising:

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a plurality of first input terminals for input of character specifying address signals that specify the font data corresponding to a character code (Figure 1-120 is the input terminals and Figure 2 is a font table with specifying data);

a plurality of first output terminals through which the font data in accordance with the input of said first input terminals is output (Figure 1- 121 is image signal representing a font); and

a plurality of second output terminals through which resolution level signals representing a resolution level of the font data are output (Figure 1- 122 is control signal to form an image having a designated resolution).

Igarashi discloses a font memory for storing a plurality of font data with different resolution. It is noted that Igarashi does not explicitly disclose "the resolution level is sequentially altered at a predetermined timing and, in addition to font data corresponding to the character code spelled by the character specifying address signals and corresponding to the resolution level being output from said first output terminals, resolution signals representing the resolution level are output from said second output terminals", however, this is known in the art as taught by Sugiura et al., hereinafter Sugiura. Sugiura discloses a method of display image in which resolution of an image is incremented sequentially by an address counter (column 13, line 37-39).

Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Sugiura into Igarashi because Igarashi discloses a font memory for storing a plurality of font data with different

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resolution and Igarashi discloses the output image could be increase sequentially in order to find a desired resolution.

9. Claims 3 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Igarashi (5,740,462) in view of Sugiura et al, and further in view of Suzuki et al. (JP PN 410290367).

As per claims 3 and 8, Igarashi and Sugiura demonstrated all the elements as applied to the rejection of independent claims 1 and 2, supra, respectively and further discloses a plurality of density level output terminals through which density level signals specifying density levels when the dot patterns are displayed is output ((Figure 1- 105 is output terminal, 121 is image signal and 122 is control signal to form an image having a designated resolution (column 2, line 42-46)).

Igarashi and Sugiura disclose a font memory for storing a plurality of font data with different resolution. It is noted that Igarashi and Sugiura do not explicitly disclose "based on the number of dots in the dot pattern, a density level is calculated when the dot pattern is displayed and density level signals specifying the calculated density level are output from said density level output terminals", however, this is known in the art as taught by Suzuki et al., hereinafter Suzuki. Suzuki discloses an image processor in which a pixel calculation unit calculates an output density of the subpixel of an input image signal based on the dot pattern (Solution of Abstract).

Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Suzuki into Igarashi and Sugiura because Igarashi and Sugiura disclose a font memory for storing a plurality of font data

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with different resolution and Suzuki discloses the density of the output image could be obtained in order to find a better match of the image to the screen.

10. Claims 4 and 9-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Igarashi (5,740,462) in view of Sugiura and Suzuki et al. (JP PN 410290367), and further in view of Rider et al. (4,152,697).

As per claims 4, 9, 10 and 11, Igarashi demonstrated all the elements as applied to the rejection of claims 1, 2, 3, and 8, supra, respectively.

Igarashi, Sugiura and Suzuki disclose a font memory for storing a plurality of font data with different resolution. It is noted that Igarashi, Sugiura and Suzuki do not explicitly disclose "an exclusive address is given to each dot forming the dot pattern and the font data is information representing the dot pattern using the address exclusive to a particular dot", however, this is known in the art as taught by Rider et al., hereinafter Rider. Rider discloses a font memory (Figure 1- 16) where "in the matrix format one bit is stored for each dot or element of the character" (column 2, line 37-39). Therefore, the dots are addressed by the bit pattern.

Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Rider into Igarashi, Sugiura and Suzuki because Igarashi, Sugiura and Suzuki disclose a font memory for storing a plurality of font data with different resolution and Rider discloses every dots of the pattern is addressed in order to offer rapid conversion of the data.

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11. Claims 5-6 and 12-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Igarashi (5,740,462) in view of Sugiura and Suzuki, and further in view of Ogino et al. (6,593,902).

As per claim 5 and 12-17, Igarashi demonstrated all the elements as applied to the rejection of independent claims 1, 2, 3, 8, 9, 10 and 11, supra, respectively.

Igarashi, Sugiura and Suzuki disclose a font memory for storing a plurality of font data with different resolution. It is noted that Igarashi does not explicitly disclose "wherein the dot pattern is divided by a first division unit into a plurality of pattern areas, an relevant pattern address for identifying the area is allocated to each of the created pattern areas, each pattern area divided by the first division unit is further divided by a second division unit into a plurality of pattern areas, and an address for identifying the relevant pattern area is allocated to each of the pattern areas created using the second division unit, and wherein the font data is information representing the dot pattern using the addresses obtained by repeating the above division and address allocation thereafter for an optional number of times", however, this is known in the art as taught by Ogino et al., hereinafter Ogino. Ogino discloses a method of addressing displayed information in which the display area is divided and addressed until to an appropriate level (Figure 8A-8D show progressive finer resolution with addressing scheme; "When any address information is to be set, at first, the screen shown in FIG. 8A is divided into four areas as shown in FIG. 8B, and first area addresses with two bits of "00", "01", "10", "11" each correlated to each position of the divided screens (areas a to d) are appended to the first areas' respective addresses. In this case, the number of dividing

times of the screen is "1", display resolution (in other words, the number of areas) is "4", and the number of bits required for an address for specifying each of the areas is "2", column 8, line 1-40).

Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Ogino into Igarashi, Sugiura and Suzuki because Igarashi, Sugiura and Suzuki disclose a font memory for storing a plurality of font data with different resolution and Ogino discloses the display area could be addressed by dividing it to an appropriate level in order to easily find a proper resolution for display.

12. As per claims 6 and 18-29, Igarashi demonstrated all the elements as applied to the rejection of claims 1-3 and 8-17, supra, respectively.

Igarashi, Sugiura and Suzuki disclose a font memory for storing a plurality of font data with different resolution. It is noted that Igarashi does not explicitly disclose "the dot pattern is divided into quarter pattern areas, two bit addresses 00, 01, 10 and 11 are allocated to each of the created pattern areas, each created pattern area is further divided into quarter pattern areas, and two bit addresses 00, and 11 are further allocated to each of the created pattern areas, and wherein the font data is information representing the dot pattern using the addresses obtained by repeating the above division and address optional number of times", however, this is known in the art as taught by Ogino. Ogino discloses a method of addressing displayed information in which the display area is divided and addressed until to an appropriate level (column 8, line 1-40).

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Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Ogino into Igarashi, Sugiura and Suzuki because Igarashi, Sugiura and Suzuki disclose a font memory for storing a plurality of font data with different resolution and Ogino discloses the display area could be addressed by dividing it to an appropriate level in order to easily find a proper resolution for display.

Conclusion

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Inquiries

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Ryan Yang** whose telephone number is **(703) 308-6133**.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Michael Razavi**, can be reached at **(703) 305-4713**.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

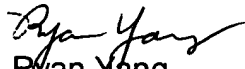
or faxed to:

(703) 872-9314 (for Technology Center 2600 only)

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Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.


Ryan Yang
August 8, 2004